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TRADE AND DEVELOPMENT BOARD
Commission on Trade in Goods and Services, and Commodities
Expert Meeting on Positive Measures to Promote Sustainable Development, Particularly in Meeting the Objectives of Multilateral Environmental Agreements
Geneva, 3-5 November 1997
Item 2 of the provisional agenda

ADOPTION OF THE AGENDA

Provisional agenda and annotations

I. Provisional agenda

1. Election of officers
2. Adoption of the agenda
3. Positive measures to promote sustainable development, particularly in meeting the objectives of multilateral environmental agreements (MEAs)
4. Adoption of the report

GE.97-51521

II. Annotations to the provisional agenda

Item 1: Election of officers

It is recommended that the Expert Meeting elect a Chairperson and a Vice-Chairperson-cum-Rapporteur.

Item 2: Adoption of the agenda

The provisional agenda for the meeting is in section I above. The schedule of meetings for the three days is attached to this document.

Documentation

TD/B/COM.1/EM.3/1 Provisional agenda and annotations

Item 3: Positive measures to promote sustainable development, particularly in meeting the objectives of multilateral environmental agreements (MEAs)

The meeting is convened pursuant to a decision taken by the Commission on Trade in Goods and Services, and Commodities at the second part of its first session (19-21 February 1997). The objective is to "examine positive measures, including innovative approaches to them, in the context of promoting sustainable development, particularly in meeting the objectives of multilateral environmental agreements (MEAs)".[1]

With a view to expediting substantive discussions of the Expert Meeting, the UNCTAD secretariat has prepared an issues paper entitled "Positive measures to promote sustainable development, in particular in meeting the objectives of multilateral environmental agreements" (TD/B/COM.1/EM.3/2). It identifies issues on which deliberations could focus, as follows: (a) experiences in accessing environmentally sound technologies and capacity-building; (b) the role of market-based instruments, including emissions trading and joint implementation, in promoting sustainable development; (c) the role of incentives for biodiversity conservation and for promoting sustainable development; and (d) financial mechanisms and innovative approaches to generating financial resources for sustainable development.

The Expert Meeting is intended to focus on possible actions at the multilateral level to promote sustainable development and more particularly to meet the objectives of multilateral environmental agreements (MEAs). It may contribute to a better understanding of the opportunities and challenges in the implementation of positive measures, as well as providing an opportunity to examine innovative approaches to them. This could help to ensure their effective implementation, which would be essential to advance sustainable development. The results of the Expert Meeting will be submitted to the Commission on Trade in Goods and Services, and Commodities at its second session (17-21 November 1997) for action.

Documentation

TD/B/COM.1/EM.3/2 "Positive measures to promote sustainable development, particularly in meeting the objectives of multilateral environmental agreements".

Item 4: Adoption of the report

The Expert Meeting will adopt its recommendations/findings/conclusions at the end of the Meeting. The final report will be compiled under the authority of the Chairperson after the conclusion of the Meeting.

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[1] Report of the Commission on Trade in Goods and Services, and Commodities on its first session (TD/B/44/5 - TD/B/COM.1/6), annex I, part B, para. 3(a).

Schedule of meetings

Monday, 3 November	Tuesday, 4 November	Wednesday, 5 November
10 a.m. Plenary: Opening of the Meeting Election of officers Adoption of the agenda Informals: Item 3	10 a.m. Informals (cont'd): Item 3	10 a.m. Informals (cont'd): Item 3
3 p.m. Informals (cont'd): Item 3	3 p.m. Informals (cont'd): Item 3	3 p.m. Informals (cont'd): Item 3 (if necessary) Consideration of the draft text of recommendations or conclusions Plenary (closing): Adoption of the report

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TRADE AND DEVELOPMENT BOARD
COMMISSION ON TRADE IN GOODS AND SERVICES, AND COMMODITIES
Expert Meeting on Positive Measures to Promote Sustainable Development, Particularly in Meeting the Objectives of Multilateral Environmental Agreements
Geneva, 3-5 November 1997
Item 3 of the provisional agenda

POSITIVE MEASURES TO PROMOTE SUSTAINABLE DEVELOPMENT, PARTICULARLY IN MEETING THE OBJECTIVES OF MULTILATERAL ENVIRONMENTAL AGREEMENTS

Report prepared by the UNCTAD secretariat

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GE.97-51503

I. THE CASE FOR POSITIVE MEASURES

1. In recent years, there has been growing interest in "positive measures"[1] to assist developing countries in implementing policies and measures aimed at promoting sustainable development. There are many instruments which can be used for such purposes. These may involve actions to be taken at the local or regional level to begin or continue the process of gradual internalization of environmental costs and benefits, and actions at the multilateral level. The Expert Meeting is intended to focus on actions that could be taken at the multilateral level to promote sustainable development and more particularly to meet the objectives of multilateral environmental agreements (MEAs).

2. Positive measures, as the term is used in this report, include not only mechanisms to promote full participation and compliance on the part of all parties to MEAs, but also measures which could be used to encourage a dynamic process of continuously improving environmental performance that might go beyond the obligations in MEAs. In this sense, positive measures include transfer of finance and technology, incentives in the areas of building institutional, personnel and managerial capacities, information management, technical assistance, and dynamic economic (i.e. market-based) mechanisms.

3. Positive measures have become an increasingly common feature of MEAs for several reasons. Whilst the environmental objectives of MEAs have received broad public support, it has been increasingly recognized that MEAs involve important economic and developmental issues, and that compliance costs may differ widely across developed and developing country parties, thus raising issues related to equity. In this context, by attempting to give full consideration to principles such as equity[2] and common but differentiated responsibilities, positive measures promote participation and effective international cooperation in the implementation of the provisions of MEAs.

4. Further, failure to comply with the provisions of MEAs is rarely the result of deliberate policies of parties, but rather the consequence of deficiencies in administrative, economic or technical infrastructure. In this context, positive measures have been considered necessary because compliance control and enforcement regimes are often insufficient for the effective implementation of MEA provisions.[3]

5. Positive measures have also been considered in the trade and environment debate. In discussions in the WTO Committee on Trade and Environment (CTE), two issues have emerged. First, positive measures can reduce or obviate the need for trade measures, by offering alternative policy instruments. Where trade measures are nevertheless deemed necessary, positive measures can be used as part of a

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[1] The term "positive measure" does not appear in any of the existing MEAs and is not used in Agenda 21. However, the term has been extensively used in post-UNCED analysis and intergovernmental deliberations in UNCTAD, WTO, and the Commission on Sustainable Development (CSD). The CSD has invited UNCTAD and UNEP to undertake work in this area.

[2] Equity has three aspects: (a) the distribution of costs between developed and developing country parties; (b) inter-generational distribution of costs; and (c) procedural equity, i.e. enhancing developing countries' full participation in the development of legal instruments and the review of their effectiveness, as well as in decision-making processes.

[3] On the concept of compliance assistance, see: Ulrich Beyerlin and Thilo Marauhn, "Law-making and law-enforcement in international environmental law after the 1992 Rio Conference", Research reports of the Max Planck Institute for Comparative Public Law and International Law, No.4, Heidelberg, 1997.

policy package that takes account of the interests of all parties. The other issue is the relationship between the generation of, access to and transfer of environmentally sound technologies and products and the multilateral trade rules concerning trade-related intellectual property rights.

6. Positive measures have been built into several MEAs, such as the Montreal Protocol on Substances that Deplete the Ozone Layer (MP), the Convention on Biological Diversity (CBD) and the Framework Convention on Climate Change (FCCC). In principle, provisions on positive measures and their effective implementation could be a quid pro quo for entering into new commitments, and several MEAs contain wording indicating that the effective implementation of commitments by developing country parties depends on the effective implementation of developed country commitments related to financial resources and transfer of technology.[1]

7. Whilst positive measures have not always been easy to implement, innovative approaches to positive measures may be politically attractive in the light of existing budget constraints and their potential to reduce the costs of achieving the environmental objectives of an MEA. Innovative approaches focus on instruments or mechanisms that address specific interests and concerns of parties or stakeholders, make creative use of market-based mechanisms and harness new sources of finance for positive measures. Innovative approaches include such mechanisms as partnership arrangements for funding and technology transfer, multi stakeholder and integrated approaches or tradeable carbon emission permits and promote the involvement of the private sector and civil society in achieving the objectives of an MEA.

8. This report examines a range of positive measures which have been deemed important by the Commission on Sustainable Development (CSD) and the conferences of parties of the various MEAs. These include technology transfer, capacity-building, financial assistance, and market based instruments. Although there exists a wide range of positive measures, they are generally covered under one of these broad categories.

II. EXPERIENCES IN ACCESSING ENVIRONMENTALLY SOUND TECHNOLOGIES AND CAPACITY-BUILDING

9. Several MEAs contain specific provisions on technology transfer which may include financial mechanisms to facilitate such transfer. Although it was recognised at UNCED that developed countries have a responsibility with regard to assisting developing countries in building national capacities for environmentally sound technologies (ESTs), operationalizing the existing MEA provisions on technology transfer has proved difficult. Technology transfer, in general, includes both "hardware" elements such as machinery and equipment and "software" elements such as skills, know-how and related organizational and

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[1] For example, Article 4.7 of the FCCC states that: "The extent to which developing country Parties will effectively implement their commitments under the Convention will depend on the effective implementation by developed country Parties of their commitments under the Convention related to financial resources and transfer of technology and will take fully into account that social development and poverty eradication are the first and overriding priorities of the developing country Parties." Almost identical wording is contained in Article 20.4 of the CBD.

Article 10 of the Montreal Protocol established a financial mechanism, the Multilateral Fund, for the purpose of providing financial and technical cooperation, including for the transfer of technologies. The mechanism shall meet all agreed incremental costs of beneficiary Parties in order to enable their compliance with the control measures of the Protocol. Since its creation in 1981, the Executive Committee has allocated more than US$ 500 million. See also paragraph 32 of this report.

institutional arrangements for the transfer process[3]. Technological capacity building, which is an important condition for effective technology transfer, would include knowledge and skills that firms need in order to acquire, assimilate, use, adapt, change and create technology. With regard to modalities for technology transfer, apart from financial mechanisms which have been built into some MEAs, other modalities such as trade (e.g. in equipment) and foreign investment (both direct investment and joint ventures) can play a role in the diffusion of ESTs. Indeed, technology transfer is increasingly driven by market forces and international private investors. More work is needed to examine how these different modalities have contributed to the transfer of ESTs, particularly of technologies required by some MEAs. Which countries have benefited from them and the extent to which technology transfer has been carried out on fair and favourable terms should also be further examined.

A. Experience in accessing environmentally sound technologies

10. There is relatively little empirical evidence on the extent to which transfer of technology provisions have been implemented[4] and the extent to which the broad concept of technology transfer, as outlined above, has been taken into account. An exchange of analyses and information regarding national experiences may be useful and may indicate ways and means to enhance effective transfer of technology.

11. Technology needs and problems faced in accessing technologies mandated under the Montreal Protocol vary across developing countries. Countries which are both producers and users of ozone depleting substances (ODS) tend to have larger needs. This is the case, in particular, in countries such as China, India and the Republic of Korea, where production is dominated by domestically owned firms as opposed to transnational corporations (TNCs), which tend to have easier access to substitute technologies.

12. Existing evidence indicates that it has been relatively easier to phase out ODS in some products than in others. In the refrigeration and air-conditioning sectors, difficulties have been reported in the acquisition of substitute technologies because many of the technologies are of a proprietary nature[5] and few alternative suppliers exist. Further, although some substitute technologies and chemicals are easily available, access to their catalysers is subject to private dealings. Moreover, in many cases manufacturing costs are considered confidential business information. Although an alternative would be the indigenous development of technologies in developing countries which have the capacity to do so, this would require established capacities and a long gestation period.

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[3] In the case of the Montreal Protocol, the indicative list of incremental costs is an elaboration of some elements of technology transfer.

[4] See UNCTAD, Fostering Technological Dynamism: Review of the Literature, Fostering Technological Dynamism: evolution of thought on technological development process and competitiveness:, United Nations publication, Sales No. E.95.II.021.

[5] Under the Montreal Protocol, a developing country that is unable to fulfil any or all of the obligations relating to controlled substances because of inadequate implementation of articles 10 (relating to finance) and 10A (relating to technology transfer), can notify the secretariat. Under the procedure for non-compliance approved at the Fourth Meeting of the Parties, the non-complying party should be assisted.

[6] This exemplifies the fact that although intellectual property rights (IPRs) can provide incentives for innovation, they can also increase the cost of acquiring technologies mandated in some MEAs.

13. Experience with the FCCC shows that technology transfer and capacity building assistance takes place largely under bilateral cooperation activities (often on a commercial basis). Examples of bilateral activities are the Danish Energy Research Programme (EFP), which aims to adapt Danish environmentally sound technologies to the specific needs of Central and Eastern European and developing countries and to facilitate the transfer of technology; the French technological cooperation programme with developing countries in Africa and South-East Asia; the United Kingdom's Technology Partnership Initiative (TPI) which encourages transfer of technology and know-how to developing countries on commercial terms; and the Australia Environmental Co-operation with Asia (ESCAP) Programme for the transfer of environmental management capabilities to Asia on a commercial basis through the private sector and government.

B. Possible approaches to promoting technology transfer

14. This section examines selected approaches and mechanisms to promote the transfer of ESTs to developing countries to address global environmental problems. These are not necessarily new, but try to build on existing mechanisms or tailor them to the needs of particular MEAs.

Integrated approaches to technology transfer in the area of waste management

15. An integrated approach to technology transfer could include, inter alia, the provision of finance, training, investment, and technology (hardware and software). The centres on training and technology transfer to be established under the Basel Convention (BC) have the potential to operationalize such an integrated approach [1]. Whilst the goal is to make such centres self financing, with the involvement of the private sector and NGOs, there is a potential huge gap between resource requirements and their availability.

16. The UNCTAD secretariat has been holding consultations with the Governments of two fast-growing Asian countries to implement an integrated approach to technology transfer for the improvement of local environmental performance and the risk management of recycling facilities. It will be operationalized by a multi-stakeholder advisory panel comprising government departments, private-sector and NGO representatives, and technical experts from relevant national and international bodies. The objective is threefold: (a) to facilitate a cost-effective and socially acceptable way of meeting the objectives of the Basel Convention; (b) to operationalize technology and skill transfer in a situation and commodity-specific way and make accessible new sources and forms of self-sustained finance, in particular from the private sector; and (c) to pinpoint the need for and the forms of positive measures to be provided and operationalized by the "Basel" centres on training and technology transfer in Asia, particularly in India and Indonesia.

Technologies sponsored by the public sector

17. A number of ESTs may have been developed through sponsorship by Governments, or resulted from publicly supported research and development. An important feature of publicly funded technology is that Governments can exercise a certain degree of influence over its generation and diffusion. For example in the area of the Montreal Protocol, public support for the development of substitute technologies and products in Germany allowed the industrial sector

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[1] See UNCTAD, Promoting the Transfer and Use of ESTs: A Review of Policies, United Nations publication, Sales No. E.96.II.04.

[2] Of the eleven centres to be established, Slovakia, China and Uruguay are officially in operation.

to meet agreed deadlines for the phase out of ODS and of old technologies.[7] An important question is the extent to which the role played by the public sector in the development of such ESTs may facilitate their diffusion to developing countries on fair and favourable terms.

18. Clearly, publicly funded technologies are not "off the shelf" technologies: they need to be standardized, tested, and produced on a larger scale. This process will often require close cooperation between the research and development (R&D) community and enterprises in both developed and developing countries. As a result, local R&D capacity in applied R&D in developing countries would be strengthened. However, the arrangements to increase the availability of publicly funded ESTs would require new ways of financing, particularly for the non-commercial elements of the transfer.

19. There may also be opportunities for South-South cooperation in the area of publicly sponsored technologies. Technologies developed in developing countries may be particularly suitable for application in other developing countries. Examples include China's alternative technologies for air conditioning and India's large rural renewable energy programmes. A recent survey also includes an extensive list of activities undertaken in a cross section of developing countries to address climate change within national development strategies.[8] Similarly the Republic of Korea has developed alternative technologies for chlorofluorocarbons (CFCs) with public funds. To ensure the wider dissemination of publicly sponsored technologies to other developing countries, one possible mechanism could be the creation of a technology bank where technologies could be banked and "lent" on preferential and non commercial terms.

Clearing houses and transferring patent rights

20. Developing countries can make informed and environmentally sustainable technological choices if they have access to information on the entire range of ESTs available to them, including the possibilities for their adaptation to local needs and conditions. Information could be classified under financing options and technology options. With regard to the latter, it would be useful to indicate whether a particular technology option was in the public domain or proprietary in nature. Better flows of information would also improve access to best available and not excessively expensive technologies, as well as information on obsolete technologies.

21. Improving existing environmental information systems, rather than building new ones, and establishing regional information clearing houses can be a first step towards establishing a network of ESTs under each MEA.[9] Regional centers could focus on the information needs of the end users, in particular developing countries. The Ozone Action Clearing House is one such example.

22. New initiatives could help: (a) identify technology transfer opportunities, as well as holders and recipients of technologies; (b) estimate costs and initial investment requirements; (c) recruit and finance recipients, as well as provide advice on how to obtain the resources for training; (d) secure IPRs and assist in drawing up licensing arrangements. Such initiatives could

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[7] Gerhard Angerer, Einflusse der Forschungsförderung auf Gesetzgebung und Normenbildung im Umweltschutz, Heidelberg, 1996.

[8] "Pilot Information Needs Survey Regarding Climate Relevant Technologies", prepared by IVAM Environmental Research, University of Amsterdam, 1997.

[9] The need for technology clearing houses is more immediate where there are multiple technological options for implementing the MEA.

encourage joint ventures with small scale technology providers in all countries. This could include traditional and indigenous technologies. An interesting question would be whether and how national Governments, intergovernmental organizations or multilateral funds could play a role in helping to finance and develop such networks.

23. The idea of establishing a technology rights bank to act as an intermediary to advance the diffusion of proprietary technologies required under MEAs by making them available to developing countries on favourable terms is not new.[7] Such a bank could increase access to and diffusion of technologies relevant to a MEA by (a) negotiating the acquisition and diffusion of patent rights with technology owners on fair terms; (b) accepting patents as donations from both private and public sectors; and (c) initiating licenses, commercial development agreements and use agreements with suitable users in developing countries under conditions negotiated on a case by case basis.

Environmental offset investment programmes

24. An environmental offset investment is a financial programme in which one country foregoes a domestic environmental investment in favour of financing a more cost effective programme in another country addressing a global environmental problem. Offset investment programmes may cover a broad spectrum of activities, ranging from equipment to training and technical assistance. A linkage can be made with the transfer of ESTs, particularly in the context of joint implementation (JI) and activities implemented jointly (AIJ) in relation with climate change. These technologies could include those already in use or new and untried technologies, and should result in efficiency gains or in a better environmental performance in the host country. It may be necessary to operate this instrument alongside a clearing house so that the associated transaction costs can be reduced.

C. Capacity-building

25. Capacity-building encompasses the development of a country's human, scientific, technological, organizational, institutional and resource capabilities.[8] An interesting example of capacity-building is a current three-year project in Gabon funded by the Global Environmental Facility (GEF).[9] The project aims to involve local communities in the monitoring of wildlife populations, as well as to assess the impact of trade on wildlife populations in order to develop and implement sustainable trade strategies that ensure the long-term survival of wildlife species. Activities include national training seminars for agents charged with wildlife conservation and control, the production of a practical manual for the identification of regional species, and the revision of national conservation legislation with a view to ameliorating the implementation of the country's obligations under the Convention on Trade in Endangered Species (CITES). The project is also considering the development of methods for local communities to monitor changes in wildlife populations and manage their resources in a more sustainable manner. Also, a number of studies, e.g. on wild parrot population, will assess possible rates of commerce and the

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[7] Agenda 21 recommends that, in the case of privately owned technologies, it might be possible to "purchase patents and licenses on commercial terms for their transfer to developing countries on non-commercial terms as part of development cooperation for sustainable development, taking into account the need to protect intellectual property rights". Agenda 21, para. 34.24(e)(iii).

[8] Agenda 21, Chapter 37.

[9] OECD, Experience with the Use of Trade Measures in the Convention on International Trade in Endangered Species, COM/TD/ENV(97)10/REV1.

feasibility of captive breeding programmes with a view to assigning economic value to endemic wildlife.

26. Although capacity-building has been addressed by MEAs either through their provisions or resolutions of the conferences of parties (CoPs), their implementation can prove problematic. The implementation of financial obligations can affect the extent of capacity-building activities, particularly if these fall under the purview of the relevant MEA Secretariats.[18] Under the Montreal Protocol however, a number of capacity building activities have been supported by the Multilateral Fund[19]. In reality, capacity-building activities have often relied on bilateral assistance. Thus, the secretariats of CITES and the Basel Convention have been providing technical assistance, but the levels of funding have been low.[20] For example, the Basel Convention's Technical Cooperation Trust Fund (TCTF) has a planned current annual budget of only about $1.5 million. Bilateral aid programmes play a relatively important role, most in the form of "counterpart contributions". In the case of CITES, training seminars are being funded to a large extent from official bilateral aid and a few NGOs, as well as in-kind contributions. Experience with the FCCC also shows that capacity-building assistance takes place largely under bilateral cooperation activities. The OECD has developed guidelines for donor assistance to capacity development in environment.[21]

III. FINANCIAL MECHANISMS AND INNOVATIVE APPROACHES TO GENERATING FINANCIAL RESOURCES FOR SUSTAINABLE DEVELOPMENT

27. This section analyses provisions on financial transfers and mechanisms in recent MEAs (in particular provisions on "compliance assistance" contained in the Montreal Protocol, the CBD and the FCCC), as well as other ways of generating new public and private financial resources to assist developing countries in promoting sustainable development and more particularly in tackling global environmental problems.

A. Financial mechanisms built into MEAs and related concepts

28. First-generation MEAs, such as CITES and the Basel Convention, contain hardly any specific commitment on the transfer of financial resources to developing countries. Recognizing this, the respective CoPs have adopted a number of decisions on specific issues in the area of finance which, however, are not binding and are predominantly related to training and capacity-building. Recent MEAs, however, contain provisions committing developed country parties to transfer financial resources to developing countries to assist them in meeting

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[18] For instance, under the Basel Convention, the operational costs of the currently envisaged 11 regional/subregional centres on training and technology transfer are estimated at almost $6 million for the first two years of operation. However, under the Technical Cooperation Trust Fund to Assist Developing Countries in 1997-1998, only $600,000 has been budgeted for the centers, and resources of about $1 million have been specifically provided by individual developed countries to set up and/or operate the centers.

[19] For example, approximately 80 countries have been assisted to establish National Ozone Units with the funds of the Multilateral Fund paying for the personnel as well as the equipment.

[20] Projects requiring a limited amount of funding have nevertheless been very successful.

[21] OECD, Donor Assistance to Capacity Development in Environment, OECD Development Cooperation Guidelines Series, 1995.

their obligations. Examples are Article 10 of the Montreal Protocol, Article 4.3 of the FCCC and Article 20.2 of the CBD.[22]

29. Defining the financial needs of beneficiary countries and the extent of the financial obligations of the developed countries involves the issue of defining concepts such "incremental costs" and "additionality". Concerning the first concept, in principle, financial resources should be provided to developing countries to meet the "agreed incremental costs"[23] of implementing measures to fulfil their obligations. In practice, the definition of incremental costs may be a complicated and sometimes controversial issue, even though the Montreal Protocol and the CBD have indicative lists of such costs.[24]

30. Additionality is a vexed issue, since the extent of any additionality is difficult to assess. For example, as of 1996, member countries of the Development Assistance Committee (DAC) may report up to a maximum of 84 per cent of their contributions to the GEF as ODA. In such circumstances, it is difficult to determine to what extent GEF contributions are new and additional.

31. The requirements of developing countries in fulfilling their commitments in accordance with the concept of agreed incremental costs should, in principle, determine the financial resources that should be transferred to developing countries. In practice, however, determining the amount of funding requirements may involve difficult negotiations and a complicated and time-consuming project approval cycle.[25] Who benefits from funding and to what extent SMEs have sufficient access to funding are also issues to be considered.[26]

32. The two main financial mechanisms established to help with the implementation of MEAs are the Multilateral Fund (MF) and the Global

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[22] In some cases, MEAs also contain provisions on financial resources that go beyond compliance assistance, such as Articles 4.4 and 4.8 of the FCCC. In all these cases, the texts of the Conventions stipulate that developed country parties "shall" provide financial resources to developing countries, which would indicate the existence of a legally binding obligation.

[23] The difference between the costs of a project undertaken with global environmental objectives in mind and the costs of an alternative project that the country would have implemented in the absence of global environmental concerns.

[24] The GEF will prepare operational guidance for implementing agencies based on a Council approved approach to incremental costs.

[25] For the implementation of the Montreal Protocol in India, the incremental costs of conversion to phase out ODS were estimated by the Indian Government at US$ 1.4-2.4 billion, about four times the size of the entire Multilateral Fund for the period 1993-1995, while the World Bank estimated the costs of Indian conversion at US$ 320-482 million (Duncan Brack, International Trade and the Environment, Royal Institute of International Affairs, p.89).

[26] Funds are allocated primarily to large projects, benefiting in particular large firms. A recent study on Thailand indicates that while most companies presenting projects for funding are Thai-owned in majority, with ownership varying from 51 to 100 per cent, companies receiving funds were generally multinational corporations and/or local subsidiaries or affiliates of foreign-based companies. Most of the companies intended to phase-out ODS irrespective of the funding offered by the MF, although financial assistance provided by the Fund may have encouraged producers to take action early on. Thailand Environment Institute, Thailand and the Montreal Protocol: Assessing Progress and Impacts, p.17.

Environmental Facility (GEF). The MF[27] is the Montreal Protocol's specific financial mechanism, while the GEF[28] has been designated as the interim funding mechanism for the FCCC and the CBD.

33. Some MEAs contain provisions requiring periodic review of the effectiveness of the corresponding financial mechanism and appropriate actions to be taken, where necessary, to improve effectiveness. An example is Article 21, para. 3, of the CBD.[29]

B. Exploring additional and/or innovative financial mechanisms

34. Apart from the specific financial mechanisms of MEAs, promoting sustainable development and addressing global environmental problems requires other sources of financing, including ODA,[30] not all of which can be mobilized by the public sector. An open question is thus the extent to which and how public sector funds could be used to catalyze and leverage private-sector funds.[31] Possible mechanisms for so doing include: (a) promoting foreign direct investment; (b) debt-for-nature swaps; (c) promoting the mobilization of domestic resources; (d) reducing subsidies, taking full account of the specific conditions and the different levels of development of individual countries; (e) reducing barriers to the use of economic instruments; and (f) exploring innovative financial mechanisms.

35. Innovative financial mechanisms, including international environmental funds[32] and national environmental funds attracting external financial

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[27] Since the creation of the Multilateral Fund, agreed contributions have amounted to around US$ 695 million. A budget of US$ 540 million was adopted for the period 1997-1999, of which US$ 74 million would be provided by funds unallocated during 1994-1996, requiring a replenishment of the Multilateral Fund of US$ 466 million.

[28] In the case of the GEF, from its inception in 1991 until June 1997, the total amount of authorised funding for projects in the GEF work programme was US$ 1,57 million. Of this amount, US$ 837 million was committed and US$ 337 million was disbursed.

[29] Subsequently, guidelines have been established by the CoP of the CBD to assess the effectiveness of its financial mechanism (Decision III/7).

[30] For example, the CBD, apart from creating a financial mechanism, states that the developed country parties may also provide financial resources through bilateral, regional and multilateral channels (Article 20.3).

[31] In this context, "the GEF has increasingly been using its resources to leverage additional funds, especially from the private sector. The IFC/GEF Poland Efficient Lighting Project and the IFC/GEF Small and Medium Enterprises Project are two examples. By putting relatively small amounts in venture capital funds, GEF is able to mobilize 4 or 5 times as much in equity financing in the private sector, which in turn mobilizes a multiple in loan financing". Theodore Panayotou, "Taking Stock of Trends in Sustainable Development since Rio", page 48. United Nations Department for Sustainable Development, Finance for Sustainable Development, Proceedings of the Fourth Group Meeting on Financial Issues of Agenda 21, Santiago, Chile, 1997.

[32] Environmental funds can pool various types of financial resources (earmarked taxes and charges, grants or concessional loans, debt-for-nature swaps, etc.) to provide long-term funding for environmental programmes. National environmental funds (NEFs) do not, in principle, constitute new sources of finance. However, NEFs have actually been able to mobilize and attract funds for

resources, would appear to represent a promising source of finance, for the future although they have only raised a small amount of resources so far."

36. Policies and measures are required to generate significant levels of private funding. For example, high transaction costs have been cited as a reason for lack of interest in environment-related projects in developing countries, e.g. in the area of climate change. Providing technical assistance to host countries in drawing up projects and streamlining project-approval mechanisms and assisting them in building institutional capacity could help to overcome such resistance and facilitate greater financing.

37. Private/public-sector partnerships, co-financing arrangements and joint ventures could also be means to attract private finance into environment-related projects in developing countries, as could the creation of investor pools. Companies unwilling to put large sums into a voluntary framework on their own might be willing to form a fund, thus limiting the exposure of any single company and lowering overall investment transaction costs. Venture capital funds could be one mechanism to attract private funds for project financing. These could perhaps be modeled on the Inter-American Development Bank's new investment fund for small environmentally friendly projects in Central America which leverages national and multilateral contributions. Innovative public/private insurance schemes (such as the United States' Export-Import Bank's "Environmental Exports Program") could also be developed in dealing with investment risks. Further, opportunities for joint ventures between investors and local companies could be explored. In this context, it is worth noting that the private sector in developing countries, particularly in Asia, plays a key role in developing and funding infrastructure projects, including those related to the environment, in particular energy.

38. It is also worth noting that, together with GEF, the International Finance Corporation (IFC), which is part of the World Bank Group, lends directly to the private sector, including for environment-related projects in developing countries. For example, IFC's planned Renewable Energy and Energy Efficiency Fund (REEF) will mobilize new financial resources, including private capital, for investments in renewable-energy and energy-efficiency projects in non-OECD countries. A similar initiative is the proposed IFC Biodiversity Enterprise Fund for Latin America. The IFC may also take equity positions in companies to which it lends, play the role of catalyst to other investors from the private sector, and work to develop capital markets in developing countries. The extent to which such financial mechanisms could be extended and developed in other financial institutions is an issue which merits attention.

IV. THE ROLE OF INNOVATIVE MARKET-BASED INSTRUMENTS IN PROMOTING SUSTAINABLE DEVELOPMENT

39. Well designed market-based instruments may have several inherent merits: (a) their ability to stimulate adjustments in both production and consumption behaviour, including innovation in pollution abatement technologies; (b) their cost-effectiveness and self-enforcing nature; and (c) in case of some economic instruments, the generation of revenues that can be used either to reduce taxes or finance other environmental policy measures. However, to be effective and

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environmental purposes that may not have been available otherwise. For a summary of pros and cons of environmental funds, see Theodore Panayotou, op. cit., pages 63-64.

" ECOSOC, "Overall Progress since the United Nations Conference on Environment and Development, Financial Resources and Mechanisms", para.5, E/CN.17/1997/2/Add.23, January 1997.

remain predictable, market-based instruments require an adequate regulatory framework."

40. Specific provisions for market-based instruments are contained in the Basel Convention, the FCCC and the Montreal Protocol. The Basel Convention envisages a protocol on liability and compensation for damage resulting from the transboundary movement and disposal of hazardous wastes and other wastes (Article 12). The FCCC contains provisions on the coordination of relevant economic instruments and joint implementation, whereas the Montreal Protocol refers to an international exchange of production limits under the Protocol's "industrial rationalization" provision. There is also reference to other economic instruments such as labelling of products in the context of the Montreal Protocol.

41. The use of environmental liability in international environmental agreements - as envisaged in the Basel Convention - is not new. Indeed, some agreements, such as the Convention on Civil Liability for Oil Pollution Damage, are based exclusively on environmental liability. By efficiently internalizing damage costs, environmental liability has the potential to reduce enforcement costs for Governments and be an effective preventive tool. Furthermore, unlike regulatory measures, an environmental liability scheme promotes innovation in low-waste technology and environmentally sound waste management. Environmental liability can also counter the propensity to resort to illicit waste trade in the wake of trade restrictions.

42. The intergovernmental discussions on the draft BC protocol give reason to believe that primary liability will be placed on private entities, i.e. civil liability. A number of questions remain, however. First, the link of the liability regime with the stringent trade regulations of the Convention, in particular decision III/9, is unclear. Second, the insurability of liability requires a sufficiently large and competitive insurance market. Third, a liability scheme with compulsory insurance would need to take into account the fact that international waste and scrap trade among developing countries is the most dynamic segment of global trade in waste and secondary material and that the insurance market in most developing countries is not sufficiently well developed to offer competitive environmental liability cover.

43. The Montreal Protocol's "industrial rationalization" provision allows exchange of production limits of controlled substances individually. Both the number of international transactions and the volume of material traded have so far been very small.[11] At present, no international exchange of hydrochlorofluorocarbon (HCFC) production quotas is permitted under the Protocol. Labelling of CFC-free products has proved an effective though often supplementary tool in improving consumer awareness of ozone depletion and in influencing purchasing decisions.

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[10] For more information in this regard, see: S. Smith and H.B. Vos, *Evaluating Economic Instruments for Environmental Policy*, OECD, Paris, 1997.

[11] The Amendment to the Basel Convention would virtually dry out the export of hazardous waste from OECD to non-OECD countries. Accordingly, the lion's share of international trade in hazardous waste would be conducted among developing countries and as exports from developing countries to OECD.

[12] For more information, see: D. Leed, Ozone protection in the United States: elements of success, in: E. Cook (ed.), *Trading pollution*, World Resources Institute, Washington, D.C., 1996.

A. Joint implementation and greenhouse gas emissions trading

44. Within the framework of FCCC, the future implementation of two economic instruments, joint implementation (JI) and a greenhouse gas (GHG) emissions trading system (ETS), is still under consideration.

45. JI is a project-based system of redistribution of GHG emissions that can reduce the costs of any participant in the scheme whenever marginal costs of abatement differ from one country to another.[37] JI projects can be implemented between countries with legally binding emissions limits and those which do not have such limits. As the marginal cost of abatement is lower in developing countries than in developed countries, the exploitation of those opportunities via JI investments could lead to new and additional resource flows and technology transfers to developing countries.[38]

46. By contrast, ETS requires the imposition of an emissions cap and focuses on national emission totals. Each nation would be obliged to emit no more than its emissions budget, i.e. the quantity of permits/allowances it holds in a specific time frame.[39] Participating nations may then exchange or bank certified excess emissions permits/allowances to ensure that they hold enough to cover their emissions. GHG emitters will have incentives to make emission reductions that cost less at the margin than the price of a permit and to invest in technological development so as to abate more cheaply in the future. Trading, banking and borrowing are seen as providing flexibility to emission sources in meeting their compliance obligations.

B. Pros and cons of joint implementation and emissions trading

47. By enabling participants to seek out the least costly way of achieving their emission reduction targets, JI and ETS should help to ensure that environmental goals are achieved at reduced cost. Indeed, it has been estimated that cost savings could be quite large, equivalent to hundreds of billions or even trillions of dollars per year by the middle of the next century.[40]

48. A pilot phase of AIJ is currently underway. AIJ projects must represent both additional funding for the host (developing country) and additional

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[37] Such redistribution of abatement efforts would not weaken the overall environmental goal, because where a ton of GHG emissions occurs has no effect on its contribution to global climate change.

[38] At its first meeting in Berlin in 1995, the CoP decided to launch a pilot phase of "Activities Implemented Jointly" (AIJ), to be reviewed not later than the end of 1999. In its Berlin Mandate, the CoP further decided that "no credits shall accrue to any Party as a result of greenhouse gas emissions implemented jointly". Consequently, cooperative activities between different Governments, firms or NGOs to reduce or sequester emissions undertaken in accordance with Article 4.2(a) and the Berlin AIJ Decision are referred to as AIJ. Other such cooperative measures are referred to as JI.

[39] Proposals currently under negotiation in the Ad Hoc Group on the Berlin Mandate provide for an "emissions budget" (i.e. the total amount of greenhouse gases that can be emitted over a period of several years) to be allocated to each Annex 1 Party. Multiple emissions budget periods are also envisaged.

[40] See Edward A. Parson and Keren Fisher-Vanden, Joint Implementation and its Alternatives: Choosing systems to Distribute Global Emissions Abatement and Finance, John F. Kennedy School of Government, Harvard University, April 1997.

emissions abatement relative to what would otherwise have occurred. The latter provides an incentive to market-based forms of technology and skills transfer both for industrial/infrastructural projects and resource management/preservation (e.g. enhancing the carbon sequestration service rendered by forests) in developing countries.

49. Only 12 Parties, two of which are "Annex 1" countries (developed countries and countries undergoing a process of transition to a market economy), are currently recipients of AIJ projects. According to some developed countries, the major handicap of AIJ projects is the lack of some form of recognised credit for successful abatement or sequestration through such projects.[41] While substantial expansion of AIJ from present levels is likely to be both feasible and beneficial, in particular for developing countries, it cannot address a large fraction of the overall global abatement problem. This is due to problems in the credible measurement of emission effects that are intrinsic to project-level accounting. These measurement problems, the interest of investors in some return beyond abatement credits, and the high transaction costs of most projects are likely to shift any eventual JI investment into sectors and project types in developing countries that are the least expensive to implement, e.g. retrofits, emissions recapture, and planting of unforested land or forest rehabilitation.

50. Ensuring "additionality" in JI raises several conceptual and practical questions, including those relating to methods for establishing and calculating baselines, determining emissions reduced or sequestered, financial additionality, and moral hazard (incentives for parties to a project to exaggerate its impact). Furthermore, in both the JI and emissions trading markets, opportunities and incentives could exist for rent-seeking practices such as inflated emissions reduction and sequestration claims, opportunistic baselines, falsified trades, and other contestable behaviour, although such risk might be lower than under regulatory instruments.

51. The Berlin Decision of FCCC states that, in the pilot phase, AIJ could contribute to the fulfilment of commitments under Article 4.5 on the access to and transfer of environmentally sound technologies and know-how and the enhancement of endogenous capacities and technologies in developing countries. In this light, developing countries have frequently stressed at CoPs that they do not view JI in general as an alternative, but rather as an additional and complementary channel for fulfilling obligations under the Convention. They articulated fears that the increasing emphasis on JI might divert attention from the effective implementation of obligations under the Convention, and the related concern that JI would replace these existing commitments, particularly those relating to financial assistance and technology transfer. A particular concern articulated by developing countries is that JI could "skim off" the cheapest projects so that, if and when developing countries are required to arrest emissions growth or even reduce emissions in the future, they will be faced with higher marginal abatement costs.[42]

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[41] The sixth session of the Subsidiary Body for Scientific and Technological Advice (SBSTA) of FCCC, held at the beginning of August 1997, recognized that joint implementation would be limited if the issue of credits was not resolved. The discussion of crediting was postponed until early 1998.

[42] In a joint JI programme with the World Bank, Norway has engaged in projects on efficient residential lighting in Mexico and fuel switching in Poland. The projects were largely funded by the GEF and the respective host countries' Governments.The $23m cost of the Mexican ILUMEX project was borne by the Mexican Government ($10m), GEF ($10m) and Norway ($1m). The $52m cost of the Polish project was shared by the Polish government ($26m), GEF grants ($25m) and Norway ($3m). E.A. Parson and K. Fisher-Vanden, op.cit.

52. Questions have been raised about the complexity and difficulties inherent in the establishment and operation of an ETS (including trading of JI credits) compared with taxes. In the absence of a widespread emissions trading culture, establishing emissions trading and JI systems would require large up-front layouts for all countries in capacity and institution-building. Furthermore, developed countries currently enjoy a large and rapidly growing knowledge advantage in this area.

53. An ETS depends on measurement of national emission totals, which presently appears to be adequate only for energy-related CO_2 emissions. For practical reasons, therefore, a trading system might initially only cover CO_2 emissions from major fixed sources in the energy sector and might then be extended to some other sources and greenhouse gases in the medium term. Also, any international ETS depends on careful specification of the relationship between domestic regulation and the international permit system.[43] Only a few proposals have addressed this problem realistically.[44]

C. The UNCTAD/Earth Council initiative on emissions trading

54. In order to promote the early implementation of a pilot greenhouse gas emissions trading system, UNCTAD and the Earth Council recently launched the Policy Forum on Greenhouse Gas Emissions Trading. The Policy Forum will provide institutional support for a process of consultation, coordination and action among Governments and other stakeholders interested in taking timely steps towards the establishment of a limited-scale international GHG trading system, possibly starting with a few interested countries, with allowances based on CO_2 from major fixed sources and with adequate provisions for the expansion of the trading system to include additional countries, gases, sources and sinks. The introduction of a viable and effective GHG trading system will require a high degree of coordinated action among participants in the scheme to ensure that a coherent, compatible and stable market emerges.

V. INCENTIVES FOR THE CONSERVATION OF BIODIVERSITY AS A TOOL FOR THE PROMOTION OF SUSTAINABLE DEVELOPMENT

55. Achieving sustainable development necessarily involves increasing recognition of the value of the environment, be it at the global, national or local level. In the case of public or open-access goods, such as biodiversity, with their non-rival character[45], there is a need not only to conserve environmental values of a global nature, but also to internalize positive environmental externalities which have the potential to bring both environmental and economic gains. Consequently, the non-internalization of environmental values, such as biodiversity, in prices indicates the existence of market and policy failures, generating "hidden" benefits to third parties, which cannot be used as a tool for sustainable development.

56. These market and policy failures raise three important questions: the crucial role played by the various stakeholders, both at the source and at the end of these "benefits"; the need to bring as much transparency as possible to existing and projected instruments for their appropriation (benefit sharing);

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[43] Parson, E.A. and J. Fisher-Vanden, op.cit.

[44] UNCTAD, "Legal issues presented by a pilot international greenhouse gas trading system among countries with binding emission targets under the UNFCCC", Geneva, 1996.

[45] A resource is "non-rival" if its consumption by one individual does not prevent others also consuming it. Biodiversity, a positive environmental externality, is non-rival, as its positive outcome for one individual is not altered by the entry of another individual in the area.

and the need to identify appropriate mechanisms to internalize positive environmental externalities.

57. Positive measures built into the CBD in terms of access to and transfer of technology, capacity-building, incentive measures and finance are likely to be more effective if market forces are taken into account. Incentive measures[46] are important for the achievement of the objectives of the CBD. Work is also being undertaken in other forums such as UNEP and OECD.

58. International efforts could be undertaken to examine "integrated packages" to facilitate the implementation of CBD objectives, in particular by using the opportunities of the market and by developing the linkages between the economics of biodiversity and sustainable development. In this context, the following questions could be examined: (a) possibilities for developing countries to capitalise on the economic value of biodiversity; (b) the role of the private sector; and (c) ways and means to ensure a participatory approach, involving the main stakeholders.

59. With regard to (a), attention is being given to the possibility of discovering commercially valuable biochemical compounds. Biochemical resources are important for many research and development processes and for sectors such as pharmaceuticals, medicines and traditional medicines, agrochemicals, biotechnology, or cosmetics. Biological resources as raw inputs have little market value. Enhancing the capability of developing countries to add value to these resources while improving the functioning of this emerging market should strengthen their trading, economic and social development opportunities. Over time, developing countries using biological resources as a basis for development would need to promote the development of a bio-resource industry by creating a critical mass of technical and entrepreneurial skills involving biochemical research, development and marketing. This could increase the potential of bioprospecting[47] to act as an incentive for conservation and sustainable development.[48]

60. Concerning (b), the private sector in both developed and developing countries could play an important role in adding value to biological resources and in improving the functioning of the market. Promoting partnership approaches between developed and developing countries, in particular regarding access to and diffusion of technology, as well as capacity-building, can help actors from

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[46] Decision III/18, on incentive measures, adopted at COP III, inter alia requested the CBD secretariat to take into account relevant work under way in other fora, such as UNCTAD and OECD.

[47] The systematic evaluation of biological material in search for economically valuable discoveries.

[48] A recent study concludes that "it is still to early to know how much bioprospecting will contribute to biodiversity conservation. Clear examples and opportunities exist for providing benefits to source countries as well as indigenous and local communities in terms of health improvement, resource management capacity, and sustainable use of natural resources. The key to its success will be in the ability to provide near- and long-term benefits that effect changes in the behaviour of individuals, communities and private companies, as well as in natural resource policies of both developed and developing country governments. Towards this end contractual agreements for benefit sharing offer flexible, powerful instruments. They will be most successful when they can simultaneously suit local needs, maximise local strengths, and address international political and economic conditions". Joshua P. Rosenthal, "Equitable Sharing of Biodiversity Benefits: Agreements on Genetic Resources", in Investing in Biological Diversity, The Cairns Conference, OECD Proceedings, 1997).

the private and public sector as well as the indigenous and local communities to find common ground in deriving benefits from biodiversity. Market signals and specific commitments under the CBD can play a role in inducing business and entrepreneurs to include positive measures in bioprospecting arrangements, examples of which are presented in Table 1.

Table 1: Examples of the role of the private sector in implementing positive measures in bioprospecting

Positive measures \ Companies (*)		A	B	C	D	E
Access to technology	-Transferring know-how;	*	*		*	*
	-Providing equipment and supplies and transferring state-of-the-art technology;	*	*		*	*
	-Technology licensing.			*		
Capacity-building	-Providing methodologies;	*	*		*	*
	-Providing information;	*	*		*	*
	-Travel for scientists;	*	*		*	*
	-Financing training for students and trainers;	*	*	*		*
	-Providing training and sponsoring workshops.	*	*		*	*
Fees and other monetary benefits	-Fees for collection or supply;	*	*		*	*
	-Fees for scientists;	*				*
	-Support to laboratories and hospitals;	*	*			*
	-Support to build research centres;	*	*			
	-Funding research and conservation.	*	*	*	*	*
Royalties/benefit sharing	-Sharing royalties with local communities and Governments	*	*		*	*
	-Issuing licenses for commercialization.			*		*
Medical care and Education	-Facilitating health projects	*				*
	Medical care and distribution of drugs	*				
Alternative income-generating activities	-Sustainable harvesting programmes for income generation.	*				*
Private sector collaboration, developing local industries and local markets	-Creation of joint ventures;			*		
	-Enhancing value added of natural products;	*	*		*	*
	-Developing markets for natural products;	*			*	
	-Collaborating with local private sector and developing bioprospecting industries.			*	*	*
Other stakeholders' participation	-Collaboration with national research institutes;	*	*	*	*	*
	-Collaboration with NGOs.	*	*	*	*	*
Enhancing communities' bargaining power	-Collaboration with indigenous federations;	*			*	*
	-Financing visits to laboratories and carrying out discussions for collaboration;	*				*
	-Establishment of plant reserves.	*			*	*

(*) : A: Shaman Pharmaceuticals (United States); B: Merck & Co.,Inc. (United States) and INBio (Costa Rica) ; C = British Technology Group (United Kingdom) ; D: AMRAD Discovery Technologies PTY Ltd (Australia); E: International Cooperative Biodiversity Groups -ICBG- (United States), a publicly funded programme from the United States which fosters private sector collaboration. Source: UNCTAD, on the basis of information provided by companies.

This could be further enhanced by international efforts aimed at reducing prevailing high transaction costs[11] and building partnerships between firms from developed and developing countries, in particular regarding access to and diffusion of technology and capacity-building.

61. With regard to (c), sustainable development of biological resources can be achieved only when local communities have an economic stake in protecting biodiversity. On equity grounds, it is essential that information provided by traditional healers, farmers or local residents which is used to identify potentially valuable biological materials is obtained through informed consent and results in appropriate compensation. It is important to promote the fully informed and effective participation of indigenous peoples in all aspects of the development and implementation of packages of positive measures if the aim of sustainable development through effective partnerships is to become a reality.

62. One example of efforts to identify a package of measures attempting to use conservation as a means to add value to biological resources and to contribute to sustainable development is the UNCTAD BIOTRADE Initiative. The Initiative is a collaborative effort with the secretariat of the CBD, Governments, intergovernmental and non-governmental organizations, the academic community, the private sector and local communities. Its objective is to identify ways and means to stimulate investment and trade in biological resources as a means of furthering the three objectives of the CBD. Using predominantly extrabudgetary resources, these objectives will be pursued by seeking to enhance the capability of developing countries with abundant biological resources to compete more effectively in the emerging markets for products based on biological resources. Information dissemination, training and technology transfer, capacity building, and enhancing equitable benefit-sharing are of key importance in this regard.

63. One of the critical issues facing the BIOTRADE Initiative is how to translate the uncertain future benefits of biodiversity conservation into private sector alliances for bio-business and development. The Initiative will be successful if it is able to generate benefits to developing countries, including their local and indigenous communities, in particular those who own biological resources and the knowledge that may be derived from it, as well as the developing countries' private sector.

64. BIOTRADE is envisaged as an integrated programme consisting of three components: (a) market research and policy analysis; (b) web services and communications; and (c) country programmes. The first two components are designed to systematically compile and analyze market data and policy issues. Information thus gathered will be disseminated through a web site, publications and briefings. This should contribute to a better understanding of market dynamics and trends, barriers to entry, trade and investment flows, and bio-business development options and incentives. The country programmes will seek to analyze opportunities for the development of in-country bio resource industries. It is envisaged to continuously monitor critical programme success factors while seeking support and participation from biodiversity's stakeholders, such as governments, NGOs and the private sector, as well as local and indigenous people.

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[11] Substantial transaction costs characterize the emerging market for biological resources, creating difficulties for: (a) firms to identify interested parties or to negotiate acceptable contractual arrangements; (b) buyers and sellers to be aware of mutually advantageous opportunities; (c) Governments and other stakeholders to get information about the quality, distribution and market value of biological resources. Helping to reduce these costs can be beneficial to companies, Governments and other stakeholders, in particular in developing countries. This can help developing countries in taking informed and beneficial decisions on investments in conservation and sustainable use of biological resources.

VI. EXPLORING A POSSIBLE AGENDA ON POSITIVE MEASURES

65. This report has indicated that positive measures are an increasingly common feature of MEAs. Their effective implementation is essential for the further development of the international environmental agenda and for the promotion of sustainable development. Effectively implementing positive measures, however, is a complex and difficult task, requiring efforts at many levels. Developing an agenda on positive measures would require a discussion on the following points:

(a) How can the full and effective implementation of commitments on positive measures be enhanced, including by generating political support and mobilizing resources; what options could developing countries explore should the commitments on positive measures not be fully met?

(b) How can existing MEA provisions on positive measures be clarified or fine-tuned, for example with respect to concepts such as "incremental costs", additionality, and the operationalization of the transfer of technology and finance, particularly through the promotion of innovative approaches?

(c) How can the full utilization of existing provisions and mechanisms on positive measures by beneficiary (developing) countries be enhanced? What actions are required through national policy-making and international cooperation in areas such as technical assistance for project formulation, addressing information gaps or facilitating access of SMEs to finance and technology?

(d) Would the further development of innovative positive measures reduce or obviate the need to resort to trade measures?

(e) Is there scope for greater use of innovative approaches such as partnership, multi stakeholder and integrated approaches involving the private sector, taking the specific circumstances of countries and the interests and expertise of different actors into account; what approaches could help to harness new forms of finance?

(f) Can further exploration of market-based instruments such as emissions trading, environmental liability, and eco-taxes, keeping in mind equity aspects, reduce the cost of compliance with MEAs and induce continuous environmental improvements?

(g) How can innovative approaches, including incentives, help to promote synergies between conservation measures and trading opportunities for developing countries, for example in the area of biodiversity, wild species conservation and forest products?

(h) Is there a need for regular review of operation and adaptation of existing positive measures to specific circumstances of regions or countries, in particular developing countries, and/or a need for the design of new and more effective measures?

66. UNCTAD's contribution to a possible agenda on positive measures could centre on empirical research on the effects of positive measures on the achievement of the objectives of MEAs, in accordance with the principles of common but differentiated responsibilities and sustainable development; economic analyses of global environmental issues; the trade and development implications of policy instruments, in particular positive measures, to address such issues; an integrated analysis of trade, technology, investment, finance and development; and the promotion of innovative approaches.